

DOCUMENT RESUME

ED 088 900

TM 003 448

TITLE Racine Feedback and Diagnostic System.
INSTITUTION Racine Unified School District 1, Wis.
SPONS AGENCY Bureau of Elementary and Secondary Education
(DHEW/OE), Washington, D.C.
PUB DATE Jan 73
NOTE 39p.
EDRS PRICE MF-\$0.75 HC-\$1.85
DESCRIPTORS *Computer Programs; *Educational Diagnosis; Feedback;
Information Processing; *Input Output; Multiple
Choice Tests; *Scoring; Systems Analysis; *Tests;
Test Scoring Machines

ABSTRACT

The system is a comprehensive set of computer programs and procedures for assisting in the preparation, scoring and analysis of multiple choice test batteries. The system may be used with either standardized or locally developed tests. For the upper grades the system accepts pupil responses on mark-sense answer sheets. For lower grades pupil responses may be keypunched. When mark-sense forms are used, the system can also interrogate the school districts pupil files and preprint answer sheets for the pupils who are to be tested. A number of tests for each pupil may be analyzed at the same time. A score is computed for each test and a pupil's performance on each test relative to all pupils taking the test in the district is reported. Various types of norms can be used with the system. Mean scores and other summary statistics are reported for groups of pupils. All computer programs are written in American National Standard COBOL to facilitate implementation on most computers. The entire system is designed and written in a modular fashion to permit modifications to existing reports or additional reports to be added. This design permits the system to be understood by the computer analyst. For related document see TM003447. [This document has been reproduced from the best copy available.] (EE)

ED 088900

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

SCHEME OF INTEREST NOTICE

The ERIC Facility has assigned this document for processing to:

TM

IR

In our judgment, this document is also of interest to the clearinghouses noted to the right. Indexing should reflect their special points of view.

RACINE FEEDBACK AND DIAGNOSTIC SYSTEM

Published By
Unified School District #1
of Racine County
Racine, Wisconsin

The system described herein was developed with the aid of a Title III grant from the U.S. Office of Education, Department of Health, Education and Welfare.

January, 1973

Overview

The Racine Feedback and Diagnostic System is a comprehensive set of computer programs and procedures for assisting in the preparation, scoring and analysis of multiple choice test batteries. The system may be used with either standardized tests (such as the Stanford Achievement Tests) or with diagnostic tests prepared by teachers or curriculum consultants within the district. For the upper grades the system accepts pupil responses on mark sense answer sheets. For lower grades pupil responses may be keypunched. When mark-sense forms are used, the system can also interrogate the school districts pupil files and preprint answer sheets for the pupils who are to be tested.

All other input to the system is provided through common format input coding sheets that are easy to use and require a minimum amount of coding to be done for each test.

A number of tests for each pupil may be analyzed at the same time. All of the tests together comprise a test battery. A score is computed for each test and a pupil's performance on each test relative to all pupils taking the test in the district is reported. If national norms (or other norm data) are available for the test, this data may be provided as input and the performance (grade equivalent, percentile and stanine) of each pupil relative to the norm data is reported. Norms that are dependent on the age of the pupil (commonly used with IQ tests) may be used also.

A number of statistics are reported for tests (or scoring sets) and the items within them. The system also permits items to be grouped into other categories called item sets.

Item sets are a means of grouping items into skill areas that are not necessarily the same groupings used for traditional scoring purposes. Among other uses of item sets, the system lists the pupils in each room who do not answer correctly at least a specified percent of items in each item set.

Mean scores and other summary statistics are reported for groups of pupils. Typically these groups are rooms (and rooms are used in the description below). Other groupings are possible however. Examples are groups such as "girls in room 103" or "pupils with special needs in Westview school".

All computer programs are written in American National Standard COBOL (ANS COBOL) to facilitate implementation on most computers. The system will operate on a 32K byte machine. Expandable tables in the programs and other features, however, permit taking advantage of larger machines and reducing the required running time. A non-technical Users Guide and a more technical System Documentation Manual are available for the system. The Users Guide permits a non-technical user to prepare all required input for the system and to coordinate the test preparation, administration and analysis functions. The System Documentation Manual is designed for the systems analyst or computer programmer who is to maintain the computer programs and possibly modify them.

The entire system is designed and written in a modular fashion to permit modifications to existing reports or additional reports to be added. This design also permits the system to be understood by the computer analyst with a minimum amount of analysis and effort.

Reports Available from the System

A primary goal in the development of the system was to make the testing process a valuable learning experience for the student and the teacher. The reports prepared by the system reflect this goal in the amount of information they provide to the student and the teacher in addition to the test analyst or coordinator. Rather than simply giving the student a score, the system has the capability of telling the student why his incorrect choices were wrong and providing assistance in strengthening the students skills in his weak ones. Other reports enable the teacher to identify areas in which the entire class needs additional work and provide assistance in prescribing additional instructional material.

A variety of reports are available with different information and varying amounts of detail for the several users for whom the reports are prepared. All reports are optional and are prepared only if requested.

○ Figure 1 shows the Individual Pupil Prescriptions for incorrect responses. This report provides valuable feedback to the pupil by including a prescription for each incorrect response. These prescriptions may indicate why the response was incorrect or may direct the pupil to additional instructional material.

○ A summary of pupil scores for all pupils in each room is given on the report shown in Figure 2. Each pupils performance relative to all test takers in the district and relative to national norms is reported for each test taken.

○ The Percentile report shown in Figure 3 provides the frequency of occurrence, the percentile score and the stanine for each raw score. This report is produced for each room, for each school in the district and for the entire district. The report may also be prepared for any other grouping of rooms e.g., rooms using teacher aids, rooms using team teaching, inner city

RACINE DIAGNOSTIC FEEDBACK SYSTEM PAGE 2
THIS IS THE RUN TITLE ENTERED BY THE USER DATE 06/15/72
PRESCRIPTIONS FOR INCORRECT RESPONSES

NAME-BILL JOHNSON
NUMBER-100002
PRIMARY PUPIL SET-GREEN ROOM
COMMENTS ON INCORRECT RESPONSES

TEST PART	ITEM NUMBER	ANSWERS		PRESCRIPTIONS
		YOURS	RIGHT	
TEST PART 1	3	R	E	
PART 2/TEST 1	1	D	B	
PART 2/TEST 1	2	F	A	
PART 2/TEST 1	3	B	E	ALL CHOICES THAT ARE RAD GET THIS MESSAGE.
PART 2/TEST 1	4	G	C	
TEST 2-PART 2	3	C	A	ALL CHOICES WITHOUT THEIR OWN MESSAGES.
TEST 2-PART 2	4	R	C	

DATE 11/06/72

Figure 2

PUPIL SET - UNKNOWN		DISTRICT		P U P I L S E T			N A T I O N A L					
NUMBER	NAME	TEST	RAW	PCILE	STA9	MEAN	HIGH	LOW	PUPIL/MEAN	IQ	PCILE	STA9
09757	AUDE DAWN	7TH OTIS-LENNON I.Q.	26	22.0	3	.....	.....	.....	.....	91	30.0	4
09244	CARROLL VICTOR	7TH OTIS-LENNON I.Q.	13	4.0	2	.....	.....	.....	.....	78	9.0	2
09174	CARTER DENNICE	7TH OTIS-LENNON I.Q.	16	7.0	2	.....	.....	.....	.....	82	13.0	3
09206	CARTER EDDIE	7TH OTIS-LENNON I.Q.	22	13.0	3	.....	.....	.....	.....	86	20.0	3
04727	DURHAM DONALD	7TH OTIS-LENNON I.Q.	30	26.0	4	.....	.....	.....	.....	93	34.0	4
08800	GARDNER LORRETTA	7TH OTIS-LENNON I.Q.	21	12.0	3	.....	.....	.....	.....	85	18.0	3
08769	GARDNER RODERICK	7TH OTIS-LENNON I.Q.	14	7.0	2	.....	.....	.....	.....	82	13.0	3
10109	GERBER DAVID	7TH OTIS-LENNON I.Q.	34	9.0	2	.....	.....	.....	.....	83	15.0	3
09214	GOLDEN CHRISTINE	7TH OTIS-LENNON I.Q.	15	6.0	2	.....	.....	.....	.....	81	12.0	3
09188	MILLER JOHN	7TH OTIS-LENNON I.Q.	26	22.0	3	.....	.....	.....	.....	91	30.0	4
09221	MUAT MARYANN	7TH OTIS-LENNON I.Q.	22	18.0	3	.....	.....	.....	.....	89	26.0	4
08813	PIRKL CORY	7TH OTIS-LENNON I.Q.	12	2.0	1	.....	.....	.....	.....	74	5.0	2
04667	ST AMAND MARY JU	7TH OTIS-LENNON I.Q.	26	26.0	4	.....	.....	.....	.....	93	34.0	4
04758	URICK JOHN R	7TH OTIS-LENNON I.Q.	29	23.0	4	.....	.....	.....	.....	92	32.0	4
08168	WAINWRIGHT MICHAEL	7TH OTIS-LENNON I.Q.	8	1.0	1	.....	.....	.....	.....	71	4.0	2


 DIAGNOSTIC LANGUAGE ARTS GRADES
STUDENT SCORES

PUPIL SET - MISS FRANZKE	70	TEST	DISTRICT		P U P I L S E T			N A T I O N A L	
			RAW	PCILE STA9	MEAN	HIGH	LOW	SCALE PCILE	STA9
15043	ANCHONDO ALMA	LANG. ARTS 5	24	35.0	28	39	15	RAW SCORES ONLY	
12973	ANDERSON PAM	LANG. ARTS 5	32	69.0	28	39	15	RAW SCORES ONLY	
13003	BAY KATHY	LANG. ARTS 5	27	46.0	28	39	15	RAW SCORES ONLY	
13004	BELL SENA	LANG. ARTS 5	36	84.0	28	39	15	RAW SCORES ONLY	
15042	BINGHAM LEE	LANG. ARTS 5	33	72.0	28	39	15	RAW SCORES ONLY	
29792	BROWN JOSEPHINE	LANG. ARTS 5	16	12.0	28	39	15	RAW SCORES ONLY	
13006	CARPENTER RUSSELL	LANG. ARTS 5	31	65.0	28	39	15	RAW SCORES ONLY	
29788	CONTRERAS DOLORIS	LANG. ARTS 5	34	76.0	28	39	15	RAW SCORES ONLY	
12975	CRAMER JO ANN	LANG. ARTS 5	26	42.0	28	39	15	RAW SCORES ONLY	
12976	DIEM KELLY	LANG. ARTS 5	31	65.0	28	39	15	RAW SCORES ONLY	
29746	EDWARDS CHARMAN	LANG. ARTS 5	31	65.0	28	39	15	RAW SCORES ONLY	
13010	FLOCK JEFFREY	LANG. ARTS 5	15	10.0	28	39	15	RAW SCORES ONLY	
29790	GARZA EDDIE	LANG. ARTS 5	29	56.0	28	39	15	RAW SCORES ONLY	
13011	GILBRIDE THOMAS	LANG. ARTS 5	38	89.0	28	39	15	RAW SCORES ONLY	
13013	JANES HENRY	LANG. ARTS 5	25	39.0	28	39	15	RAW SCORES ONLY	
13014	JENSEN JUNE	LANG. ARTS 5	25	39.0	28	39	15	RAW SCORES ONLY	
12983	JOHNSON BRIAN	LANG. ARTS 5	16	12.0	28	39	15	RAW SCORES ONLY	
29791	KEPPIN RANDY	LANG. ARTS 5	22	29.0	28	39	15	RAW SCORES ONLY	
29747	KITT SANDRA	LANG. ARTS 5	31	65.0	28	39	15	RAW SCORES ONLY	
29793	LACHET DICK	LANG. ARTS 5	30	60.0	28	39	15	RAW SCORES ONLY	
12719	LUDEMAN SARAH	LANG. ARTS 5	39	92.0	28	39	15	RAW SCORES ONLY	
29787	MILLER RANDY	LANG. ARTS 5	28	51.0	28	39	15	RAW SCORES ONLY	
12991	ODELL ROSIE	LANG. ARTS 5	30	60.0	28	39	15	RAW SCORES ONLY	

Figure 2

PUPIL SET - FORTUNA 4 81

NUMBER NAME

TEST

RAW

DISTRICT

PCILE

STA9

P U P I L S E T

MEAN

HIGH

LOW

PUPIL/MEAN

S T A N D A R D

GRADE

PCILE

STA9

02903 MILKER JULIA A

ARITH. APPLICATIONS
ARITH. COMPUTATION
ARITH. CONCEPTS12 4
20 5
5 263 121
66 104
70 1270 0
0 0
40 40112.8
117.4
56.572 30
78 42
40 14 4
5 5
1 1

02152 DRAPER LEE JEROME

ARITH. APPLICATIONS
ARITH. COMPUTATION
ARITH. CONCEPTS10 3
11 3
0 163 121
66 104
70 1270 0
0 0
40 4098.7
84.3
00.063 18
56 10
0 03 3
2 2
0 0

01864 WITHERIL RICKARD L

ARITH. APPLICATIONS
ARITH. COMPUTATION
ARITH. CONCEPTS14 5
0 1
0 163 121
66 104
70 1270 0
0 0
40 40119.1
00.0
00.076 39
0 0
0 05 5
0 0
0 0

01832 SORESENSEN ANITA M

ARITH. APPLICATIONS
ARITH. COMPUTATION
ARITH. CONCEPTS25 9
22 6
31 963 121
66 104
70 1270 0
0 0
40 40129.6
123.4
169.7121 9
82 5
120 89 9
5 5
8 8

01804 KNUDTSON CRAIG ALAN

ARITH. APPLICATIONS
ARITH. COMPUTATION
ARITH. CONCEPTS6 2
13 3
13 363 121
66 104
70 1270 0
0 0
40 4076.8
90.3
90.549 6
60 16
64 202 2
3 3
3 3

02468 PETERSON RICKY

ARITH. APPLICATIONS
ARITH. COMPUTATION
ARITH. CONCEPTS11 4
10 3
11 363 121
66 104
70 1270 0
0 0
40 40105.0
81.3
84.867 24
34 8
60 144 4
2 2
3 3

03039 LOWREY BENNIE L

ARITH. APPLICATIONS
ARITH. COMPUTATION
ARITH. CONCEPTS0 1
0 1
22 663 121
66 104
70 1270 0
0 0
40 4000.0
00.0
121.60 0
5 0
86 600 0
0 0
5 5



Figure 3

PRIMARY PUPIL SET- MISS FRANZKE 70
RESULTS FOR TEST - LANG. ARTS 5

HIGH- 39 LOW- 15 MEAN- 28.5
NUMBER OF PUPILS- 28

SCORE	FREQ	PC-ILE	STA9	SCORE	FREQ	PC-ILE	STA9
15	1	3.6	2				
16	2	10.7	3				
22	1	14.3	3				
24	1	17.9	3				
25	2	25.0	4				
26	1	28.6	4				
27	3	39.3	5				
28	1	42.9	5				
29	1	46.4	5				
30	3	57.1	5				
31	5	75.0	6				
32	1	78.6	7				
33	2	85.7	7				
34	1	89.3	8				
36	1	92.9	8				
38	1	96.4	9				
39	1	100.0	9				

GROUP PUPIL SET- ALL PUPILS
RESULTS FOR TEST - LANG. ARTS 5HIGH- 48 LOW- 0 MEAN- 25.3
NUMBER OF PUPILS-2217

SCORE	FREQ	PC-ILE	STA9	SCORE	FREQ	PC-ILE	STA9
0	5	0.2	1	43	19	98.5	9
4	2	0.3	1	44	9	98.9	9
5	1	0.4	1	45	15	99.5	9
6	2	0.5	1	46	8	99.9	9
7	6	0.7	1	47	1	100.0	9
8	12	1.3	1	48	1	100.0	9
9	13	1.8	1				
10	16	2.6	1				
11	25	3.7	2				
12	31	5.1	2				
13	39	6.9	2				
14	37	8.5	2				
15	29	9.8	2				
16	55	12.3	3				
17	51	14.6	3				
18	60	17.3	3				
19	52	19.7	3				
20	54	22.1	3				
21	62	24.9	4				
22	84	28.7	4				
23	83	32.4	4				
24	63	35.3	4				
25	77	38.7	5				
26	73	42.0	5				
27	91	45.1	5				
28	105	50.9	5				
29	104	55.6	5				
30	92	59.7	6				
31	117	65.0	6				
32	89	69.0	6				
33	77	72.5	6				
34	86	76.4	6				
35	99	80.8	7				
36	65	83.8	7				
37	58	86.4	7				
38	63	89.2	8				
39	58	91.8	8				
40	50	94.1	8				
41	41	95.9	9				
42	37	97.6	9				

Figure 3

schools, etc. The report shown describes raw scores. When standardized norm data is provided for the test, this report may be requested for standardized scores also.

○ The percent of pupils selecting each response for each item is given in the report illustrated in Figure 4. This report can be an aid in determining the areas in which pupils need additional work. As with the Percentile report, this report is prepared for each room, for each school in the district, for the entire district and for any other specified room groupings. The report shown in the Figure shows items grouped by scoring set. The report is also available with items grouped by item set.

○ The Item Set Response Analysis Report, illustrated in Figure 5 is another aid in identifying instructional areas where pupils in a room need additional work. This report is prepared for each room with items grouped by item set. An accompanying sheet (shown at the bottom of the Figure) identifies the names of the item sets and test parts.

○ The Item Set Fail/Marginal report shown in Figure 6 is particularly useful in larger districts where curriculum consultants are utilized to develop instructional materials and assist in overall curriculum planning. This report, which is prepared for each room, identifies for each item set the pupils who either failed or performed marginally on the item set. ("Failing" an item set is not answering correctly at least a specified percent of items comprising the item set. A "marginal" performance is not answering correctly a higher specified percent of the items in the set.) Remedial prescriptions are provided for use by the teacher to help improve the skills of the pupils who failed or performed marginally.

DIAGNOSTIC LANGUAGE ARTS GRADES
RESPONSES FOR SCORING SETS BY GROUP PUPIL SETS

GROUP PUPIL SETALL PUPILS

TEST PART .SENTENCE SENSE
PUPILS ANSWERING ...2091

ITEM	1	2	3	PERCENT	SELECTING	RESPONSE	OMIT
1	20	78*			0	3	0
2	19	2	79*		0	0	0
3	10	82*	8		0	0	0
4	83*	3	9		0	0	0
5	70*	18	3		0	0	0
6	10	3	87*		0	0	0
7	78*	6	15		0	0	0

TEST PART .PUNC.,CAP.,AND USAGE
PUPILS ANSWERING ...2091

ITEM	1	2	3	4	OMI
8	4	4	80*	11	1
9	5	6	75*	13	1
10	6	68*	10	14	3
11	60*	5	7	27	2
12	4	5	63*	20	2
13	5	5	78*	10	1
14	5	5	7	80*	3
15	7	5	64*	23	1
16	6	71*	5	15	2
17	6	5	9	78*	2
18	50*	6	21	21	2
19	6	6	52*	37	1
20	21*	4	13	58	4
21	8	65*	9	15	2
22	5	4	7	79*	4
23	7	7	36*	48	2
24	5	61*	8	22	3
25	5	6	43*	41	4
26	6	65*	8	16	4
27	6	5	29	58*	2
28	7	6	43*	39	4
29	37*	5	23	33	2
30	42*	6	8	41	3

Figure 4

DIAGNOSTIC LANGUAGE ARTS TEST GRADE 4
RESPONSES FOR ITEM SETS BY GROUP PUPIL SETS

GROUP PUPIL SETWINSLOW

ITEM SET --PUNCTUATION
PUPILS ANSWERING ... 55

TEST PART	ITEM	1	2	3	4	PERCENT	SELECTING	RESPONSE	OMIT
PUNC,CAP,AND,USAGE	2	33*	9	16	36	9	4	0	5
	6	9	0	9	78*	0		0	4
	8	22*	22	13	31	22		0	13
	10	25*	11	13	45	11		0	5
	11	36*	13	16	31	13		0	4
	16	25*	2	30	31	2		0	5
	22	29*	7	15	45	7		0	4
	24	36*	22	9	29	22		0	4
	25	53*	7	9	25	7		0	5
	26	31*	9	22	35	9		0	4
	28	16	9	13	55*	9		0	7
	30	36*	15	18	27	15		0	4
	34	18*	15	11	51	15		0	5

ITEM SET --CAPITALIZATION
PUPILS ANSWERING ... 55

TEST PART	ITEM	1	2	3	4	PERCENT	SELECTING	RESPONSE	OMIT
PUNC,CAP,AND,USAGE	3	2	24*	15	26	24*	4	0	4
	5	7	38*	22	29	38*		0	4
	9	11	9	9	62*	9		0	9
	14	15	49*	18	13	49*		0	5
	20	4	67*	7	20	67*		0	2
	27	15	38*	11	31	38*		0	5
	32	7	18	18	49*	18		0	7

ITEM SET --VERB USAGE
PUPILS ANSWERING ... 55

TEST PART	ITEM	1	2	3	4	PERCENT	SELECTING	RESPONSE	OMIT
PUNC,CAP,AND,USAGE	1	2	5	84*	7	2	4	0	2
	7	5	25	44*	22	5		0	4

Figure 4

Figure 5

MISS FRANZKE 70

	SET 1	SET 2	SET 3	SET 4	SET 5	SET 6	SET 7	SET 8	SET 9
TEST PART.....	1111111111	111111	111111	1111111111	22	222	22	22	22
ITEM NUMBER.....	0011112233	002223	111222	000011122	33	334	34	33	33
LUDEMAN SARAH	1604782401	470362	356157	235912989	48	391	62	57	33
ANDERSON PAM	.....	.....	.....	.....3.4.4	44	.....	33	22	22
CRAMER JO ANN	4. .44.4.	3	4.4.44	43.444	.3	.....	5.	31	3.
DIEN KELLY	4.4.4.	3	.....	.....1.144	..	.55	52	3.	3.
JOHNSON BRIAN	4242.42.42	44.4.3	.1.4.4	13.444	5.	.....	33	1.	23
ODELL ROSIE	4. .4.4.4.	4	4441	11.13.441	.2	.25	11	23	31
VINE THERESA	3. .4.	4	44	3.4.4	..	.....	33	.2	1.
VINCENCIO ALMA	3. .4.	44	44	43.14.	2.	.....	.2	1.	44
BAY KATHY	2. .4.4.4.	4.1.3	4.4	3.3.4.	4.	5.2	23	..	..
BELL SENA	4. .4.	4	4	3. .444	22	.....	..	..	..
CARPENTER RUSSELL	4. .4.4.	4. .4.	4	441. .4.	.2	.2	33	14	13
FLOCK JEFFREY	444.423322	3	44.14.	24.2. .441	55	.12	..	..	..
GILBRIDE THOMAS	4. .4.4.	44.4	444	14	..	.....	..	..	..
JANES HENRY	2.4.1. 1	414.	4.	3.	34	.....	15	33	33
JENSEN JUNE	4. .4. .3	4.343	4.	3.44.	.2	.....	35	14	21
WAHLEN PAMELA	6.44 .4.	4. .4.	4	41.44.	22	.....	.5	..	..
BINGHAM LEE	444.3. .4.	444.4	4.	4. .4.	..	.....	25	..	..
ANCHONDO ALMA	44.44.4.	3. .4.3	444.	44.4.4.44	..	.2	11	33	3.
EDWARDS CHARMAN	4. .4.4. .4.	4. .4.	444	4. .444	..	.4	33	..	..
KITT SANDRA	3. .4. .4.	44.4	4.4	4.444	.2	.....	33	.2	.2
SWIFT GAIL	4.3. .4.	41. .4.	4	4.13.44.	..	.....	3.	..	..
VINE REGINA	4.4.4. .4.	444.3	4.	4344.4	45	.....	53	.2	.2
MILLER RANDY	.. .3. .41	3. .4.3	4.	313414.	.3	.....	3.	14	14
CONTRERAS DOLORIS	3.2. .4.	14.43	4.	43. .4.	.4	.....	..	.2	.2
GARZA EDDIE	4.4. .4.	43. .4.3	4.4	3.4. .4.	54	.5	15	24	4.
KEPPIN RANDY	3.4.1.32	4. .4.1	41. .4.	43. .2.24	24	.2	1.	..	..
BROWN JOSEPHINE	424.44. .42	43.413	4. .4.1	2.321.42.	32	.....	.2	22	42
LACHET DICK	4. .4. .33	4. .4.	444	3. .4.	25	.2	3	..	..

R15517-07

R A C I N E

D I A G N O S T I C

F E E D B A C K

S Y S T E M

PAGE 4

DATE 10/16/72

*** GRADE 4 MATHEMATICS DIAGNOSTIC TEST ***
FAIL/MARGINAL REPORT

PRIMARY PUPIL SET - MR. HYLBERG

ITEM SET 1-ADDITION

FAIL LIMIT 0 PC. MARGINAL LIMIT 65 PC.

BOCHEK SUSAN
LAY DEANETTE
POTTS DONNAMARGINAL 53
MARGINAL 46
FAIL 0

MARGINAL PRESCRIPTION

4,5-10 40 40 NO R P20,28,295 6-20 COL NO R P28,295
7,15,17,32-TO 30 COL W/R-P43,55,296,297,299 8-WORD PROB-P44-45
14-30 30 W/R-P43,296 16-20 40 CARRY TO 99-P18,297
18,33-MONEY-P46,49,294 9-NO. EQUATION-REQUIRES ADDITION P47,293.

NO FAIL PRESCRIPTION

ITEM SET 2-SUBTRACTION

FAIL LIMIT 0 PC. MARGINAL LIMIT 70 PC.

RUGG JESSE
BAILLEY KEVIN
BERG RENEE
BOCHEK SUSAN
COOK JOHN
FOREMAN LORI
HAAS HENRY
KOKO JOANNE
LAY DEANETTE
LINDEN DAVID
LUTZE LAURIE
MEISNER JOHN
POTTS DONNA
RINEHART MATTHEW
RUGG JESSE
SCHRAUFNAGEL JAMESMARGINAL 46
MARGINAL 50
MARGINAL 60
MARGINAL 30
MARGINAL 70
MARGINAL 70
MARGINAL 30
MARGINAL 60
MARGINAL 50
MARGINAL 70
MARGINAL 20
MARGINAL 60
FAIL 0
MARGINAL 70
MARGINAL 20
MARGINAL 70

MARGINAL PRESCRIPTION

10-SUBTRACTION EQUATION-REQUIRES ADDITION TO SOLVE P47,293
11,12-TO 40-30 NO R-P21,295 13-WORD PROBLEM P44-45
19,20,21-TO 30-30 W/R P41,43,296,297
22,34,35-TO 40-40 RENAMING ACROSS ZEROS P297.

Figure 6

⊙ The Fail/Marginal summary report which is shown in Figure 7 assists the curriculum consultants or other personnel at the school or district level. This report indicates the number of pupils taking each item set in each room and the number and percent of pupils in each room who failed or performed marginally on the item set.

A number of additional reports are also prepared that assist the test analyst to insure that the input to the system has been prepared and processed correctly. Examples of these are included in the "Input" section below.

Labels

Adhesive labels for inclusion in the pupils permanent records are also produced by the system. These labels show both district and nationally standardized test performance. Sample labels are shown in Figure 8.

Input to the System

As mentioned above, pupil responses are entered in the system either through mark sense answer sheets or on keypunched "IBM" cards. Other required input is the description of the test battery needed to produce the reports requested. This information is first entered on input coding sheets as illustrated in Figures 9 and 10. These sheets are then keypunched and used as input to the system. Substantial editing is performed on this input to insure its accuracy. Various reports are also produced to assist the test analyst in determining that the input data has been prepared correctly. Two of these "input validation" reports are shown in Figures 11 and 12.

1 ITEM SET - SOUNDS

	FAIL N	PC	MARGINAL N	TOTAL N
UNKNOWN	2	7.7	3	26
UNKNOWN	1	50.0	0	2
HOUSEMAN	2	8.3	0	24
HOUSEMAN	3	12.0	1	25
LINDHARD	3	10.0	1	30
LINDHARD	1	4.0	1	25
LINDHARD	1	4.8	1	21
PAYSON	3	10.3	1	29
PAYSON	2	7.7	2	26
RUPE	2	6.3	2	32
RUPE	2	5.9	3	34
RUPE	1	3.8	1	26
RUPE	2	7.7	1	26
RUPE	0	0.0	2	21
GEDEMER	0	0.0	1	31
GEDEMER	0	0.0	1	31
GEDEMER	2	7.1	5	28
GEDEMER	1	2.9	2	35
GEDEMER	1	3.4	1	29
KRONBERG	4	12.5	1	32
KRONBERG	5	13.5	0	37
KRONBERG	0	0.0	0	26
KRONBERG	0	0.0	1	35
KRONBERG	3	8.8	1	34
STEINKE	1	3.3	0	30
STEINKE	0	0.0	2	32
STEINKE	5	14.7	1	34
STEINKE	1	3.0	1	33
STEINKE	2	6.1	0	33
CHRISTENSEN	0	0.0	1	30
MAYER	1	3.2	4	31
SAWISKEY	4	11.1	3	36
TOTERO	2	6.9	0	29
TOTERO	1	3.2	0	31
TOTERO	0	0.0	0	34
TOTERO	0	0.0	2	32
TOTERO	0	0.0	2	31
BARNETT	0	0.0	3	24
BARNETT	1	3.6	3	28
BARNETT	0	0.0	5	31
HELAY	1	3.6	0	28

Figure 7

Figure 8

SAMPLE LABELS

HAAKENSON MICHAEL 14930

FALL 1972 TESTING

	LOCAL			---NATL---		
	R.S	PC	ST	G.E	PC	ST
LANG ARTS	01	27	/ 4	LOCAL ONLY		
MATH SKILL	10	83	/ 7	508	01	/ 1
READING	01	14	/ 3	LOCAL ONLY		
STEP SOCIA	21	90	/ 8	427	13	/ 3

KAPLAN DANIEL OTTO 37632

FALL 1972 TESTING

	LOCAL			---NATL---		
	R.S	PC	ST	G.E	PC	ST
LANG ARTS	02	67	/ 6	LOCAL ONLY		
MATH SKILL	08	66	/ 6	505	01	/ 1
READING	03	69	/ 6	LOCAL ONLY		
STEP SOCIA	25	98	/ 9	433	25	/ 4

LUDWIG RAYMOND JUDE 45816

FALL 1972 TESTING

	LOCAL			---NATL---		
	R.S	PC	ST	G.E	PC	ST
LANG ARTS	00	00	/ 1	LOCAL ONLY		
MATH SKILL	05	25	/ 4	504	01	/ 1
READING	01	14	/ 3	LOCAL ONLY		
STEP SOCIA	08	05	/ 2	405	01	/ 1

4

Figure 10

FEEDBACK AND DIAGNOSTIC SYSTEM
DEFINITION OF TEST PART

RECORD IDENTIFIER										RECORD SET	
D	E	F	T	P	A	R	T	2	0	11	12
01	02	03	04	05	06	07	08	09	10		

ABBREVIATION OF TEST.
THIS PART IS IN

TEST PART
ABBREVIATION

TEST PART NAME

WS
38 39

PHONICS
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36

WS

SYLLABICATION

PH
14 15

SY

*** GRADE 3 LANGUAGE ARTS DIAGNOSTIC TEST ***
ITEM DEFINITION REPORT

TEST PART	ITEM NO	ANSWER	WEIGHT	IN ITEM SETS	RESPONSE	MARK LOC	PRESCRIPTION
SENTENCE SENSE	1	2	1.0	ASKING SENTENCES SENTENCE SENSE	1 2 3	1-10 1-10 1-10	THIS IS CORRECT RESPONSE FOR THIS ITEM
SENTENCE SENSE	2	1	1.0	TELLING SENTENCES SENTENCE SENSE	1 2 3	1-11 1-11 1-11	THIS IS CORRECT RESPONSE FOR THIS ITEM
SENTENCE SENSE	3	3	1.0	NOT A SENTENCE SENTENCE SENSE	1 2 3	1-12 1-12 1-12	THIS IS CORRECT RESPONSE FOR THIS ITEM
SENTENCE SENSE	4	3	1.0	NOT A SENTENCE SENTENCE SENSE	1 2 3	1-13 1-13 1-13	THIS IS CORRECT RESPONSE FOR THIS ITEM
SENTENCE SENSE	5	2	1.0	ASKING SENTENCES SENTENCE SENSE	1 2 3	1-14 1-14 1-14	THIS IS CORRECT RESPONSE FOR THIS ITEM
SENTENCE SENSE	6	3	1.0	NOT A SENTENCE SENTENCE SENSE	1 2 3	1-15 1-15 1-15	THIS IS CORRECT RESPONSE FOR THIS ITEM
SENTENCE SENSE	7	1	1.0	TELLING SENTENCES SENTENCE SENSE	1 2 3	1-16 1-16 1-16	THIS IS CORRECT RESPONSE FOR THIS ITEM
PUNC-CAPITAL-USAGE	8	3	1.0	OTHER USAGE PUNC-CAPITAL-USAGE	1 2 3 4	1-17 1-17 1-17 1-17	THIS IS CORRECT RESPONSE FOR THIS ITEM
PUNC-CAPITAL-USAGE	9	4	1.0	VERB USAGE PUNC-CAPITAL-USAGE	1 2 3 4	1-18 1-18 1-18 1-18	THIS IS CORRECT RESPONSE FOR THIS ITEM
PUNC-CAPITAL-USAGE	10	3	1.0	VERB USAGE PUNC-CAPITAL-USAGE	1 2 3 4	1-19 1-19 1-19 1-19	THIS IS CORRECT RESPONSE FOR THIS ITEM

Figure 12

Much of the input data needed to be coded and keypunched only once for a district (and then just updated when personnel changes, etc. are made). The same input cards may then be used for a number of different tests.

Implementation of the System

As mentioned above, the entire system is written in ANS COBOL to expedite implementation. Interfaces with existing district files and systems are required only for preprinting mark sense answer sheets and for looking up pupil identification data (i.e., name and birthdate) when the completed answer sheet (or keypunched cards) are being scored. If the school district is not currently maintaining these files in a computerized form they can easily be developed for use by this system.

Because of the "self-contained" nature of the system it may be implemented on a "computer utility" or some other computer not managed by the school district.

Implementation of the system may be accomplished through use of its own instructional development and data processing personnel. Implementation assistance for both the computer system and for the development of meaningful instructional feedback is available, however. For further information concerning any aspect of the system please contact _____.